

**EPA Incorporation of Five Tribes Technical Comments submitted February 2, 2018**  
**Fish Tracking Field Sampling Plan (FSP) dated January 18, 2018**  
**Portland Harbor Superfund Site**

Comment	How incorporated in EPA comments
<b>Broad Recommendations</b>	
<p>We suggest that EPA conduct the following checks of all FSPs:</p> <ol style="list-style-type: none"> <li>Section 5.7 (c) (2) on page 10 of Appendix A, Statement of Work, of the AOC says:  <i>"The sampling will provide up-to-date information on the extent of contamination in affected media, identify existing conditions, and include a statistically valid data set that could be used to evaluate ROD remedial action objectives (RAOs). The FSP must include: ...</i>  <i>(2) Description of data collection parameters, including existing and proposed monitoring devices and locations, analytical parameters to be assessed, analytical methods employed, supporting rationale for the sample components and their relationship to ROD RAOs, metrics, and targets (fish tissue);"</i>  The FSPs should be systematically checked against this list of required FSP components.</li> </ol>	<p>EPA has checked subject FSP against the list of required FSP components.</p>
<ol style="list-style-type: none"> <li>The information included in the Pre-RD FSPs should be checked against the information in referenced Remedial Investigation (RI) FSPs to ensure that the FSPs propose consistent activities, as appropriate. For example, laboratory audits are described in the RI FSPs but not in the Pre-RD FSPs.</li> </ol>	<p>EPA is checking the FSPs under review for consistency with previous RI sampling plans. Regarding the example provided in the comment, the quality assurance project plan (QAPP) under review does state that laboratory audits will be performed.</p>
<b>Fish Tracking FSP-Specific Comments</b>	
<ol style="list-style-type: none"> <li>The Fish Tracking FSP should clearly communicate planned activities to field personnel. Though Appendix A provides several SOPs, it is not clear which ones would be followed by whom or in what order. For example, would anglers follow the decontamination SOP? (See comment 6, below, regarding length measurements.) Would each angling team and the surgery area all have cameras available? The use of cameras is not mentioned until the SOP. Further, SOPs should be tailored to this effort. The Fish Tissue Sampling SOP (SOP-04) states that the target number of specimens is 135, which is not accurate for the fish tracking effort.</li> </ol>	<p>This comment has been included as EPA Primary Comment 13.</p>
<ol style="list-style-type: none"> <li>Some stations appear to be within proposed USACE dredging areas (e.g., PDI- AR-A27). If dredging in these areas is a possibility in the next year, a contingency plan should be developed in the event that dredging occurs concurrent with the sampling.</li> </ol>	<p>This comment has been included as EPA To Be Considered (TBC) comment 2.</p>

Comment	How incorporated in EPA comments
3. In addition to the equipment lists in each individual SOP, it would be beneficial to include one overarching field sampling equipment checklist to reduce the likelihood of a sampler forgetting a piece of equipment, particularly if they are expected to follow several different SOPs.	This comment has been included as EPA TBC comment 3.
4. The FSP states that a maximum of four fish can be held in the live wells and that certain physical characteristics (e.g., length, fork length, and weight) would be measured and recorded at the time of capture to ensure identification through capture, surgery, and release. However, no contingency plan is provided in the event that the fish cannot be accurately identified. Would they all be released?	Section 4.6.1 details how the vessel livewells (pre-surgery) and post-surgery livewells will be identified with a unique ID, how identifying information will be measured for each fish upon capture (length, fork length, and weight), and that pre-surgery livewells will be limited to 4 fish. EPA has deemed these procedures as sufficient for the correct identification of captured fish prior to implantation. Additionally, EPA has requested that the fish collection SOP referenced in Section 4.6 be included in Appendix A, which should further detail identification procedures (EPA Primary Comment 13).
5. In general, insufficient contingency plans are provided. For example, what would occur if there is poor weather or if the public interferes with the shore-tethered receivers? These issues should be contemplated and described in the FSP.	This comment has been incorporated into EPA Primary Comment 1 and is addressed in part by EPA Primary Comment 12.
6. The FSP allows for opportunistic sacrifice of SMB for potential fish tissue analysis. Though some mention of the Fish Tissue FSP is made, the Fish Tracking FSP falls short of stating that procedures described in the Fish Tissue FSP would be followed. For example, will all workers be handling the fish using nitrile gloves? Would the length of each fish be measured on a decontaminated cutting board? What would occur if a fish does not meet the target size range described in the Fish Tissue FSP? Will chain-of-custody forms be submitted? The interface between the Fish Tracking and Fish Tissue FSPs must be better aligned if chemical analyses are planned for any of these samples.	This comment has been addressed as EPA Matters of Style comment 3.
7. The location of the landside surgery station is “pending site reconnaissance.” This location should be identified and described in the FSP for field personnel.	This comment has been included as EPA Primary Comment 9.
8. Section 4.6.1 states that fish displaying obvious abnormal behavior would be released and not tagged. Two sentences later, the FSP states that “If at any point abnormal behavior is observed, the fish will be sacrificed and the fish will be retained for potential chemical analysis.” This contradiction must be clarified.	This comment has been included as EPA Primary Comment 14.

Comment	How incorporated in EPA comments
9. In addition to length, fork length, and weight, the minimum and maximum sampling depths for each effort should be recorded (e.g., daily). Further, water temperature and flow should also be measured to ensure accurate conclusions regarding SMB movement.	This comment has been included as EPA TBC comment 4.
10. Page 2 of the FSP appears to refer to QAPP Section 1.3, which does not exist in the QAPP that has been submitted.	This comment has been included as EPA Matters of Style comment 2.
11. In at least two instances, the FSP refers to Section 1.2 of the FSP for data quality objectives (DQOs) and data use objectives (DUOs), but DQOs and DUOs seem to be presented in Section 1.3.	This comment has been included as EPA Matters of Style comment 2.